

## REMARKS

Claims 1, 4-9, 18, 21-25, 27, 41-54 and 59-62 are pending. Claims 2-3, 10-17, 19-20, 26, 28-40, and 55-58 are canceled.

1. Claims 1, 4-5, 8-9, 18, 21-22, 25, 27, 41-51, 53-54, and 59-62 were rejected under 35 U.S.C. 103(a) as being unpatentable over Barry et al. (US 6,188,988, hereinafter “Barry”) in view of Martin et al. (US 6,484,144, hereinafter “Martin”). Applicants respectfully traverse this rejection.

Present claim 1 is directed to a system to implement at least one medical diagnostic or treatment algorithm in a healthcare workflow. The system includes storage, a user interface, and a disease management engine. The storage includes a first medical diagnostic or treatment algorithm associated with a first third-party payer, a second medical diagnostic or treatment algorithm associated with a second third-party payer, and at least one patient medical record. The first medical diagnostic or treatment algorithm includes a selection rule associated with a medical finding and the second medical diagnostic or treatment algorithm includes a selection rule associated with the medical finding. The at least one patient medical record includes an indicator associated with one third-party payer of the first or second third-party payers. The user interface is operable to display an interface associated with the healthcare workflow to a healthcare provider. The healthcare workflow includes a set of interfaces for the healthcare provider to enter patient data into the at least one patient medical record during a patient encounter. The patient medical data is to indicate the medical finding. The disease management engine is operable to select one medical diagnostic or treatment algorithm from the first medical diagnostic or treatment algorithm or the second medical diagnostic or treatment algorithm based on the indicator associated with the one third-party payer and based on the patient medical data. The disease management engine is operable to modify the healthcare workflow in accordance with the one medical diagnostic or treatment algorithm. The first and second medical diagnostic or treatment algorithms are stored prior to the patient encounter.

Present claim 18 is directed to a method for selectively modifying a healthcare workflow. The method includes storing a first medical diagnostic or treatment algorithm. The first medical

diagnostic or treatment algorithm is associated with a first third-party payer. The first medical diagnostic or treatment algorithm includes a selection rule associated with a medical finding. The method also includes storing a second medical diagnostic or treatment algorithm. The second medical diagnostic or treatment algorithm is associated with a second third-party payer. The second medical diagnostic or treatment algorithm includes a selection rule associated with the medical finding. Further, the method includes collecting medical information from a healthcare provider during a patient encounter via an interface provided at an interactive device. Storing the first and second medical diagnostic or treatment algorithms occurs prior to the patient encounter. The medical information is associated with a patient and includes a first indicator associated with the medical finding and a second indicator associating a third-party payer with the patient. In addition, the method includes automatically selecting one medical diagnostic or treatment algorithm of the first or second medical diagnostic or treatment algorithms based on the medical information and selectively modifying the interface displayed to the healthcare provider via the interactive device based on the one medical diagnostic or treatment algorithm. Present claim 27 is directed to a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps similar to those recited in claim 18.

Claim 51 is directed to a method of implementing a disease management algorithm in a healthcare provider workflow. The method includes storing a first disease management algorithm associated with a first insurance company, a second disease management algorithm associated with a second insurance company, and a plurality of patient records. The first disease management algorithm includes a selection rule associated with a medical finding and includes an algorithm template. The second disease management algorithm includes a selection rule associated with the medical finding and includes an algorithm template. Each patient record of the plurality of patient records includes an indicator associated with an insurance company. The method further includes collecting medical information from a healthcare provider during a patient encounter via an interface provided at an interface device. The medical information is associated with a patient record of the plurality of patient records and indicates the medical finding. The method also includes automatically selecting one of the first or second disease management algorithms based at least in part on the indicator associated with an insurance company stored in the patient record and based at least in part on the medical information. The

method further includes modifying the interface provided at the interface device based at least in part on the algorithm template of the selected one of the first or second disease management algorithms. Storing the first and second disease management algorithms occurs prior to the patient encounter.

Claim 59 is directed to a method of performing a patient encounter. The method includes storing a plurality of treatment algorithms, storing a plurality of patient medical records, receiving medical data from an interface device, selecting a treatment algorithm, modifying a medical input template, and providing the modified input template to the interface device. Each treatment algorithm includes a task field, a condition field, and a content field. A first treatment algorithm is associated with a first third-party payer and a second treatment algorithm is associated with a second third-party payer. Each patient medical record includes an indicator associating the each patient medical record with a third-party payer. The medical data is associated with a patient and includes a medical finding. The treatment algorithm is selected based at least in part on the indicator of the patient medical record, based at least in part on the medical finding, and based at least in part on the task. The medical input template associated with the task is modified based on the content field of the selected treatment algorithm.

The PTO primarily relies on Barry. Barry is directed to systems and methods and computer program products for guiding selection of a therapeutic treatment regimen for a known disease. As relied upon by the PTO, FIG. 2 of Barry illustrates a system including a knowledge base of treatment regimens 21, a knowledge base of expert rules 22, a knowledge base of advisory information 23, a knowledge base of patient therapy history 24, and a patient information 25. An inference engine 26 generates a listing of available treatments in the corresponding advisory information from the information provided by the knowledge bases 21-25. (Barry, column 8, lines 12-35). Barry further discloses a computing device that contains a knowledge base of treatments, contains a knowledge base of expert rules for determining available treatment options for the patient in light of the patient information, and also contains a knowledge base of advisory information. A list of available treatments for the patient is generated from the patient information and available treatments by the expert rules and advisory information for the available treatments as generated. (Barry, column 5, lines 10-20). As such, Barry discloses using a knowledge base of expert rules to generate a listing of therapeutic

regimens for a patient from a knowledge base of treatments in light of patient information and generating advisor information based on the list of treatments.

Barry fails to teach or suggest a system including at least two disease management algorithms, each associated with a different third-party payer. Further, Barry fails to teach or suggest selecting one disease management algorithm from the first and second disease management algorithms, each associated with a different third-party payer. Barry also fails to teach or suggest a disease management algorithm including a selection rule associated with a medical finding and including an algorithm template. Furthermore, Barry fails to teach or suggest storing the first and second disease management algorithms prior to a patient encounter.

Accordingly, the PTO turns to Martin. Martin is directed to a method and system for healthcare treatment planning and assessment. As relied upon by the PTO, Martin discloses that after the provider proposes a plan, the healthcare system analyzes the plan and provides a report of its analysis. The analysis considers feasibility of the treatment plan proposed by the provider given limitations associated with the patients risk value, insurance coverage, and diagnostic information. (Martin, column 15, lines 55-60). Martin may disclose considering the feasibility of a treatment plan in view of a patient's insurance coverage after the plan is prepared. However, Martin does not associate separate disease management algorithms stored on a system with different third-party payers. Instead, much like Barry, a single algorithm is used to establish a plan. Based on the disclosure of Martin, the one plan is evaluated post preparation in view of the patient's insurance coverage and an iterative process ensues. (see, for example, FIG. 4, Martin). Such an iterative process is a typical problem of the prior art, which slows the medical workflow and adds expense. Therefore, Martin fails to overcome the deficiencies of Barry.

In contrast, claim 1 recites a storage including a first medical diagnostic or treatment algorithm associated with a first third-party payer, a second medical diagnostic or treatment algorithms associated with a second third-party payer, and at least one patient medical record. In addition, claim 1 recites storing the first and second medical diagnostic or treatment algorithms prior to a patient encounter.

Similarly, claim 18 and claim 27 recite storing a first medical diagnostic or treatment algorithm, storing a second medical diagnostic or treatment algorithm, and automatically

selecting one medical diagnostic or treatment algorithm of the first or second medical diagnostic or treatment algorithms. In addition, claim 18 and claim 27 recite storing the first and second medical diagnostic or treatment algorithms prior to a patient encounter.

Further, claim 51 recites storing a first disease management algorithm associated with a first insurance company, a second disease management algorithm associated with a second insurance company, and a plurality of patient records. Claim 51 further recites storing the first and second disease management algorithms prior to a patient encounter. The first disease management algorithm includes a selection rule associated with a medical finding and includes an algorithm template. The second disease management algorithm includes a selection rule associated with the medical finding and includes an algorithm template. Claim 51 also recites automatically selecting one of the first or second disease management algorithms based, at least in part, on an indicator associated with an insurance company stored in the patient record and based at least in part on the medical finding. In addition, claim 51 recites modifying the interface based at least in part on the algorithm template of the selected one of the first or second disease management algorithms.

In addition, claim 59 recites a first treatment algorithm associated with a first third-party payer and recites a second treatment algorithm associated with a second third-party payer.

Barry fails to teach or even remotely suggest first and second medical diagnostic or treatment algorithms, each associated with a different third-party payer, such as an insurance company. Further, Barry fails to teach or even remotely suggest selecting one of the first or second medical diagnostic or treatment algorithms. In addition, Barry fails to teach or suggest two disease management algorithms, each associated with a different insurance company, includes a selection rule associated with the same medical finding. Moreover, Barry fails to teach or suggest storing the first and second disease management algorithms prior to the patient encounter. Martin fails to overcome these deficiencies.

Furthermore, Barry in view of Martin fails to teach or suggest many of the recited elements found in independent or dependent claims. For example, the cited references fail to teach a medical diagnostic or treatment algorithm including an element, the element including a task field, a condition field, and a content field. As disclosed in the present specification, the

algorithm is selected based in part on the current task being performed within a medical workflow. The task field indicates to which task the algorithm is associated. (See Present Specification, p. 18 – p. 21). In response to Applicant previous remarks, the PTO references Table 3 of Barry. However, Table 3 of Barry is a list of exemplary rules and does not show an element including a task field, a condition field, and a content field. In other locations, Barry discloses that rules “each have two main parts: a premise and a conclusion – also referred to as the left side and the right side, respectively. When a premise of a rule is found to be true, the action specified in the conclusion is taken.” (See Barry, col. 11, ll. 18-36). Such rules are clearly do not include a task field, a condition field, and a content field.

For at least the forgoing reasons, claims 1, 4-5, 8-9, 18, 21-22, 25, 27, 41-51, 53-54, and 59-62 are patentable over Barry in view of Martin. As such, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. 103(a) rejection.

2. Claims 6, 23, and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Barry in view of Martin and further in view of Iliff (US 6,206,829, hereinafter “Iliff”). Applicants respectfully traverse this rejection.

Iliff discloses a system and method for providing computerized, knowledge based medical diagnostic and treatment advice. The medical advice is provided to the general public over networks, such as telephone network or a computer network. (Iliff, Abstract). Iliff fails to teach or suggest a system including storage for two disease management algorithms, each associated with different third-party payers, and Iliff fails to teach or suggest an element including a task field, a condition field, and a content field. As such, Iliff fails to overcome the deficiencies of Barry and Martin described above.

For at least the forgoing reasons, claims 6, 23, and 52 are patentable over Barry in view of Iliff. As such, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. 103(a) rejection.

3. Claims 7 and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Barry in view of Martin, further in view of Schmidt et al. (US 6,839,678, hereinafter “Schmidt”). Applicants respectfully traverse this rejection.

Schmidt discloses that, in a system for conducting medical studies, a number of medical locations, such as clinics or medical practices, are connected to a central server via a computer network. (Schmidt, Abstract). Schmidt fails to teach or suggest a system including storage for two disease management algorithms, each associated with a different third-party payer, and Schmidt fails to teach or suggest an element including a task field, a condition field, and a content field. As such, Schmidt fails to overcome the deficiencies of Barry and Martin described above.

For at least the forgoing reasons, claims 7 and 24 are patentable over Barry in view of Schmidt. As such, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. 103(a) rejection.

Applicants respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims.

Should the Examiner deem that any further action by the Applicants would be desirable for placing this application in even better condition for issue, the Examiner is requested to telephone Applicants' undersigned representative at the number listed below.

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Respectfully submitted,



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